truthfulness of their client before they are willing to take their case."

That taboo began in 1923 when the United States Supreme Court ruled in the case of Frye v. United States that the polygraph test of that time could not be used as evidence in court.

"Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define," the opinion states. "Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs. We think the systolic blood pressure deception test has not yet gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made."

At that point, a precedent was set, Shaw said. Most courts would not allow the exams, but the science and study of polygraphing continued to develop and improve. Polygraphs continued to be used in the investigation of crimes, as well as for employment screening and other areas in which deception needed detecting. But, the Supreme Court maintained its precedent, with little sway from its course.

For example, in 1991, Barrington Morton appealed his murder conviction in part because evidence that he passed a polygraph exam was ruled inadmissible during his trial. After Morton was indicted for his crimes, he, his attorney and the then-serving assistant commonwealth's attorney came to an agreement that the polygraph would be allowed as evidence. However, when the trial date arrived, a new commonwealth's attorney was prosecuting the case and moved to exclude the exam — a motion which was granted.

In its opinion, the Supreme Court expressed its disapproval of the circumstances under which the commonwealth recanted on its agreement. However, the Court maintained its position that polygraph exams are "unreliable and therefore inadmissible."

"While this Court would not countenance dishonesty or the taking of unfair advantage of the commonwealth, neither will we perpetuate a practice which subverts rather than assists the truth-finding process," the Court wrote in its opinion. "We hold the polygraph evidence offered here inadmissible, not because of the commonwealth's change of heart, but because appellant (Morton) was never entitled to have the evidence admitted."

A CHANGE IN COURSE?

Just two years after the Morton case was decided, a new case in the United States Supreme Court replaced the Frye standard from 1923. The case of Daubert v. Merrell Dow Pharmaceuticals Inc., lifted the restrictions on scientific evidence Frye had set in place so many years before.

Instead, according to the Cornell University Law definitions, it created a standard in which a trial judge can "make a preliminary assessment of whether an expert's scientific testimony is based on reasoning or methodology that is scientifically valid and can properly be applied to the facts at issue. Under this standard, the factors that may be considered in determining whether the methodology is valid are:

- whether the theory or technique in question can be and has been tested;
- whether it has been subjected to peer review and publication;
- its known or potential error rate;
- the existence and maintenance of standards controlling its operation; and
- whether it has attracted widespread acceptance within a relevant scientific community."

"The Daubert Standard, that was a big turnaround," Shaw said. "It started to put recognition [of the polygraph] back in the legal community. And, what we're finding from the polygraph profession side, is for us to increase our utility in actual cases in law enforcement settings, we have to educate the users and let them know that what happened 90 years ago shouldn't make a decision about what we can do today and our scientific backing."

On its website, the American Polygraph Association addresses the admissibility of polygraph in court and similarly >>

What is a Polygraph?

The term "polygraph" literally means "many writings." The name refers to the manner in which selected physiological activities are simultaneously recorded. Polygraph examiners may use conventional instruments, sometimes referred to as analog instruments, or computerized polygraph instruments. It is important to understand what a polygraph examination entails. A polygraph instrument will collect physiological data from at least three systems in the human body. Convoluted rubber tubes that are placed over the examinee's chest and abdominal area will record respiratory activity.

Two small metal plates, attached to the fingers, will record sweat gland activity, and a blood pressure cuff, or similar device will record cardiovascular activity. A typical polygraph examination will include a period referred to as a pre-test, a chart collection phase and a test data analysis phase. In the pre-test, the polygraph examiner will complete required paperwork and talk with the examinee about the test. During this period, the examiner will discuss the questions to be asked and familiarize the examinee with the testing procedure.

During the chart collection phase, the examiner will administer and collect a number of polygraph charts. Following this, the examiner will analyze the charts and render an opinion as to the truthfulness of the person taking the test. The examiner, when appropriate, will offer the examinee an opportunity to explain physiological responses in relation to one or more questions asked during the test. It is important to note that a polygraph does not include the analysis of physiology associated with the voice. Instruments that claim to record voice stress are not polygraphs and have not been shown to have scientific support.

— Excerpt from the American Polygraph Association's website, frequently asked questions. For more details, visit http://www.polygraph.org/section/resources/frequently-asked-questions. ■